

Reply to J.M. Kolesar et al, J.S. Bates et al, and T.C. Knepper et al


We are gratified that our commentary resonated enough with the intended audience to prompt multiple groups to respond with their concurring perspectives that our concerns represent a major issue. Each group shared their solutions and ensuing successes of their specific programs from the challenge of translating practical recommendations from biomarker testing results into practical management for oncology clinicians. What is most striking is the diversity of clinical settings represented—a large, tertiary care cancer center in an urban area,¹ a statewide program serving Kentucky's predominantly rural Appalachian region,² and the Veteran's Administration (VA) system on a nationwide scale.³ Interestingly, each of these programs has independently arrived at a solution centered on oncology pharmacists as key facilitators of molecular tumor boards (MTBs) that have successfully delivered practical guidance to very different clinician populations.

These examples serve as bright spots offering needed and appreciated support to oncologists working in diverse settings, such as a tertiary care academic cancer center, the national VA system, and rural community-based oncologists. Although a prevailing presumption arguably exists that academic oncologists may have relatively limited need for such input, Knepper et al¹ relay how the oncologists at one of the largest academic free-standing cancer centers in the United States have come to consider their Precision Medicine Clinical Service (PMCS) to be indispensable to them. The more community-based oncologists who largely represent the beneficiaries of the other programs described also recognize the input they receive as helpful in shaping patient care.^{2,3} Each group also reviewed the growing volumes of cases covered, in some cases reaching several thousand per year.

Could these services be replicated broadly enough to cross the chasm of interpretation of biomarker testing to translate it into optimal clinical management? If such a template, centered on cross-disciplinary programs with pivotal involvement from dedicated oncology pharmacists, was to be adopted across an ever-growing array of oncology centers and institutions, this would greatly reduce the bottleneck. But even the great successes that these programs represent are grounded in limitations of how broadly they can be applied. The VA-based National Precision Oncology Program, as described by Bates et al,³ provided support for nearly 500 cases across the United States in 2022, but how

scalable are such programs as molecular testing is becoming increasingly integrated into more tumor types and earlier stages of disease. The Moffitt Cancer Center-based PMCS dedicates tremendous resources in terms of personnel performing real-time interpretations and weekly MTBs with minimal delays, but the MTBs are conducted monthly or twice monthly in the Kentucky-based² and VA system programs,³ respectively, accompanied by disparities in the availability of this support between one setting and another on the basis of the depth of resources feeding the engine of these efforts. Moreover, in light of weeks already required to run next-generation sequencing and potentially other tests that comprise broad biomarker testing, the added interval even measured in extra weeks to have cases reviewed by an MTB is likely to be viewed as problematic for many patients and oncologists who feel time pressure to initiate treatment as promptly as feasible.

Each of these groups deserves congratulations and tremendous gratitude for implementing much needed solutions to help overcome the difficulty in translating complex biomarker testing results into clear recommendations for the clinicians in their system. It is easy to envision similar programs being developed in many other centers, a practice that could meaningfully improve the practice of molecular oncology as it is adopted. At the same time, we note that even with the limited sample of the solutions introduced in these three programs, disparities in resources of personnel and time available to dedicate to these services translate to meaningful differences in the volume and proportion of cases that can be completed; we must anticipate that differences in the availability of these programs and their degree of support will perpetuate disparities in our ability to deliver ideal management, individualized based on biomarker testing, until we can scale systems to apply interpretive support universally.⁴

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AUTHORS' DISCLOSURES OF POTENTIAL CONFLICTS OF INTEREST

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